

Remarks

The Examiner will see that paragraphs 1 to 10, which relate to informalities, have been addressed by amendments to the drawings, specification and claims.

Turning to the substantive claim rejections, applicant is grateful for the Examiner's indication that claims 7 to 9 and 16 to 17, as originally filed, contain allowable subject matter. New claims 18 to 20 and 21 to 22 have been introduced directed to the subject matter corresponding to original claims 7 to 9 and 16 to 17 and should thus be immediately allowable.

Also, it is submitted that the Examiner's rejections of claims 1 to 6 and 10 to 15, as detailed in paragraphs 11 to 20 of the Office Action, are now moot in view of the current amendments to those claims. However, the applicant makes the following observations.

Prior to the present invention, the Multiservice Switching Forum (MSF) defined a concept known as the virtual switch for use in ATM networks. The virtual switch is an abstraction of the resources of the communications network to provide switching of data traffic. Virtual switches need not reside on a single physical switch, but may be defined using the resources of any of one or more nodes of the network which are capable of switching. Similarly, one physical node may be used to provide any of one or more virtual switches. Prior to the present invention, the architecture for providing virtual switches was known only for ATM networks. In the present invention, the applicant has shown for the first time how the virtual switch concept may be implemented over a frame-mode switching network such as a MPLS network.

Accordingly, independent claims 1 and 2, directed to a communications network, have each been amended to include the feature that the network comprises one or more virtual switches for switching data traffic. Similarly, independent claims 10 and 11, directed to a method of operating a communications network, have each been amended to include the feature that the method comprises switching data traffic over one or more virtual switches.

Furthermore, claims 2 and 11 have been further limited to recite that communications network is a frame-mode switching communications network.

Turning to the prior art references cited by the Examiner, it is immediately apparent that Sanzi (US 6,477,166), Kodialam (US 6,538,991), Sakamoto (US 6,633,571) and Casey (US 6,205,488) all refer to frame-mode switching networks such as MPLS networks. However, none of these references disclose the feature of a virtual switch. On the other hand, Hughes (US 6,434,612) discloses the feature of a virtual switch, as indicated by the Examiner. However, Hughes is only applicable to ATM networks which are not frame-mode switching networks. This supports the applicant's contention that the present application shows for the first time how the virtual switch concept may be implemented over frame-mode switching networks such as MPLS. Furthermore, applicant submits that there is no suggestion in any of the documents to combine them so as to arrive at the invention as presently claimed.

One skilled in the art would not consider combining Hughes with any of the other references in view of the fact that Hughes is only applicable to ATM networks, whereas the other references concern frame-mode switching networks.

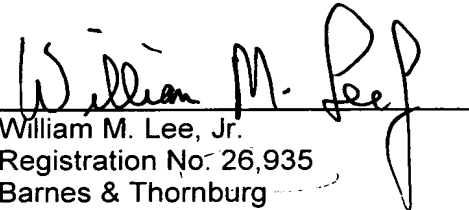
It should also be noted that Casey is not citable as a prior art reference under 35 USC 103(c) in view of common ownership at the time of the invention.

The Examiner is now requested to consider new claims 23 to 28 which are directed to a frame-mode switching communications network comprising one or more virtual switches for switching data traffic. In view of the above, applicant submits that these claims are allowable.

In summary, applicant believes that the present invention is patentably distinct over the prior art cited by the Examiner and looks forward to receiving a Notice of Allowance in due course.

February 6, 2004

Respectfully submitted,


William M. Lee, Jr.
Registration No. 26,935
Barnes & Thornburg
P.O. Box 2786
Chicago, Illinois 60690-2786
(312) 214-4800
(312) 759-5646 (fax)